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No. 92-1189

IN THE
Supreme Court of the United States
OCTOBER TERM, 1992

COLUMBUS-AMERICA DISCOVERY GROUP, INC.,
Petitioner,

v.

ATLANTIC MUTUAL INSURANCE COMPANY, *et al.*,
Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Fourth Circuit

MOTION FOR LEAVE TO FILE BRIEF AMICUS CURIAE AND BRIEF AMICUS CURIAE OF THE NATIONAL ASSOCIATION OF ACADEMIES OF SCIENCE IN SUPPORT OF PETITIONER

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MOTION FOR LEAVE TO FILE BRIEF AMICUS CURIAE OF THE NATIONAL ASSOCIATION OF THE ACADEMIES OF SCIENCE IN SUPPORT OF PETITIONER

The National Association of the Academies of Science hereby moves, pursuant to Rule 37.2 of the Rules of this Court, for leave to file the attached brief as *amicus curiae*. Counsel for the respondents have refused to consent to the filing of this brief; counsel for the petitioner has consented.

The National Association of Academies of Science is comprised of 45 member academies and is devoted to promoting scientific inquiry, advancing education and

fostering practical and theoretical progress in science. The Association believes that the preservation of incentives to engage in scientific inquiry is a matter of great significance to us all. For instance, attempts to improve our quality of life have led scientists into previously unexplored areas, leading to breakthroughs in many fields, from medicine to bio-science and improved technologies. The earth's seas provide virtually untapped promise for advancing numerous fields of scientific study.

While the possibilities for scientific information from new discoveries in the deep seas are virtually limitless, and the practical benefits many, the ability and opportunity to conduct the costly and time-consuming research necessary for such endeavors is greatly diminished when scientists and engineers are subject to protracted and expensive litigation over stale claims. The location and conservation of submerged and maritime historical cultural resources depends on costly specialized technologies. The ability of explorers to obtain financial backing, either through private venture capital or commercial loans, will usually hinge on their ability to assure clear title to their finds, and to convey good and clear security interests. In undermining such clear title for finders, the practical effect of the conflict among the circuits over whether admiralty courts may infer abandonment of long-lost shipwrecks will be to impede opportunities presented for scientific research in the deep seas. The immediate effect of the decision below is to undermine certainty and predictability of the incentives for innovative exploration. When a discovery team of scientific researchers, supported by private financial investment, can no longer be assured of their ownership right to material they recover, continued advanced deep ocean exploration will suffer.

The Fourth Circuit's decision threatens not only deep sea exploration, but space exploration as well. Because the untamed frontiers of both deep ocean and outer space pose many of the same challenges to any human presence,

legal practices and rules affecting human presence in the ocean will likely influence those in outer space.

Moreover, realizing the full educational and scientific potential of shipwrecks requires that they be treated as integral. If a responsible group, such as Columbus-America Discovery Group, is prevented from carrying its work to completion, no scientists, explorers, archaeologists, or entrepreneurs will risk undertaking such enormously expensive projects; and they certainly will have little ability to promote the kind of scientific and educational programs that might be otherwise available.

Dividing shipwreck sites into a multiplicity of ownership interests, based on ancient claims of ownership, will disrupt their scientific and historic integrity. If the court of appeals' decision stands, it will aid only those groups that sit on the sidelines and wait for a judicially-created windfall from the hard work and ingenuity of others. If such multidisciplinary efforts are not undertaken, we will all be the losers.

For these reasons, the Court should grant this motion for leave to file the attached brief *amicus curiae* in support of the petitioner.

Respectfully submitted,

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February 16, 1993

QUESTION PRESENTED

May admiralty courts continue to infer abandonment of long-lost shipwrecks from the passage of many decades, non-use, and all other relevant facts and circumstances, and accordingly award ownership of a shipwreck to those who discover, recover and conserve it under the law of finds; or must courts award title to purported insurers and their successors who claim ownership of a shipwreck under the law of salvage on grounds that abandonment can never be found absent clear and convincing evidence that the purported owners expressly renounced title?

TABLE OF CONTENTS

	Page
QUESTION PRESENTED	i
TABLE OF AUTHORITIES	iv
STATEMENT OF INTEREST	1
THE PETITION FOR CERIORARI SHOULD BE GRANTED	2
I. THE DECISION BELOW IS IMPORTANT TO SCIENTISTS, EDUCATORS AND YOUNG PEOPLE THROUGHOUT THE NATION	2
A. The Decision Below Has a Stifling Effect on Nascent Scientific Endeavors to Develop New Medicines, Advance Bio-Science and Improve Technologies in the Deep Seas	2
B. The Decision Below Impedes Pioneering Scientific Efforts in the Deep Seas, Outer Space and Other Extreme Environments	5
C. The Decision Below Squanders Educational Opportunities in the Deep Seas	6
II. THE DECISION BELOW IS IN CONFLICT WITH THE OTHER CIRCUITS AND STATE SUPREME COURTS, AND SENDS THE WRONG MESSAGE TO OUR NATION'S YOUNG PEOPLE	8
CONCLUSION	9

TABLE OF AUTHORITIES

Cases Page

Columbus-America Discovery Group, Inc. v. Unidentified, Wrecked and Abandoned Sailing Vessel, 1989 AMC 1955 (E.D.Va. 1989) 3

Columbus-America Discovery Group v. Atlantic Mutual Insurance Co., 974 F.2d 450 (4th Cir. 1992) 8

Miscellaneous

H.H. Almond, Jr., *Sea Salvage Law Could Solve Chaos of Space Debris*, Defense News, Dec. 10, 1990, at 34 6

Conrad G. Welling, *Mining of the Deep Seabed in the Year 2010*, 45 La. L. Rev. 1249 (1985) 4

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U.S. Congress, Office of Technology, *Technologies for Underwater Archaeology and Maritime Preservation-Background Paper*, OTA-BP-E-37, 8 (1987) 5

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BRIEF OF THE NATIONAL ASSOCIATION OF ACADEMIES OF SCIENCE AS AMICUS CURIAE IN SUPPORT OF PETITIONER

STATEMENT OF INTEREST

The National Association of Academies of Science is comprised of 45 member academies and is devoted to promoting scientific inquiry, advancing education and fostering practical and theoretical progress in science. It encourages all scientific disciplines, in all parts of the nation. The National Association is especially active in stimulating young people interested in science, and works closely with junior and collegiate academies of science to support scientific research at the high school and collegiate levels. Because it believes that the law should encourage science by fostering the fundamental national tradition that vision, hard work and ingenuity pay off—and because the court of appeals' decision sends precisely the

opposite message to the young people of our nation—the National Association of Academies of Science believes this matter warrants the Court's attention.

THE PETITION FOR CERTIORARI SHOULD BE GRANTED

I. THE ISSUE IS IMPORTANT TO SCIENTISTS, EDUCATORS AND YOUNG PEOPLE THROUGHOUT THE NATION

The court of appeals' decision has sent shock waves throughout the scientific community. It has baffled not only oceanographers, explorers, and discoverers, but also individuals and institutions representing a broad range of scientific, pharmacological, technological, and biological interests. The court of appeals' holding, in practical effect, that admiralty courts may no longer apply common sense to consider the circumstantial evidence and infer abandonment—and instead, that the finder of a long-lost item at sea must prove express abandonment by clear and convincing evidence—is contrary not only to the weight of authority, but also to virtually all credible precedents. More fundamentally, the notion that a loose consortium of insurance companies, which never stepped forward to assist in exploration or recovery efforts in any way, can appear in court at the last minute and successfully strip a team of engineers, scientists and explorers of the fruit of many years of vision, initiative, risk, and hard work shocks the national conscience.

A. The Decision Below Has a Stifling Effect on Nascent Scientific Endeavors To Develop New Medicines, Advance Bio-Science and Improve Technologies In the Deep Seas

The preservation of incentives to engage in scientific inquiry is a matter of great significance to us all. Attempts to improve our quality of life have led scientists into previously unexplored areas, leading to breakthroughs

in many fields, from medicine (including discoveries that may some day allow us to fight or slow diseases such as cancer and AIDS), to bio-science and materials science, to improved technologies and communications generally (especially in the area of fiber optics). The earth's seas provide virtually untapped promise for advancing these fields of scientific study.

The practical effect of the court of appeals' decision will be to detract from the opportunities presented. The immediate effect of the decision is to undermine certainty and predictability of the incentives for innovative exploration. Beyond that, the decision raises the specter that future projects will be unable to support the scientific research and effort that have been hallmarks of the *S.S. Central America* Project. *See generally* Charles E. Herdendorf, *Discovery in an Alien Environment*, American History Illustrated, Mar.-Apr. 1991, at 66. As noted by the district court, Columbus-America Discovery Group's recovery efforts have been exemplary. *Columbus-America Discovery Group, Inc. v. Unidentified, Wrecked and Abandoned Sailing Vessel*, 1989 AMC 1955, 1958 (E.D.Va. 1989). Columbus-America Discovery Group has developed new technologies and applications for maintaining the scientific and historical provenance of the *S.S. Central America*, thus preserving information and artifacts for future generations. *Id.* If the court of appeals' decision stands, it will aid only those groups that sit on the sidelines and wait for a judicially-created windfall from the hard work and ingenuity of others.

While the possibilities for scientific information from new discoveries in the deep seas are virtually limitless, and the practical benefits many, the motivation to conduct the costly and time-consuming research necessary for such endeavors is greatly diminished when scientists and engineers are subject to protracted and expensive litigation over stale claims.

Advances in marine technology have enabled exploration and expanded our knowledge of the deep ocean. "The last twenty to thirty years has produced a revolution in the knowledge of the seabed. In spite of this knowledge, we are still in the pioneering state of exploration of this very large area of the earth's surface." Conrad G. Welling, *Mining of the Deep Seabed in the Year 2010*, 45 La. L. Rev. 1249, 1254 (1985). Technological innovations have led to great improvements in underwater electronics and sensors, including television and data handling, and underwater lighting and photography. *Id.* The development of complex robots such as *Nemo*—which was created by Columbus-America Discovery Group to recover artifacts from the *S.S. Central America*—was itself a useful contribution to the emerging technology of mineral exploration. *See Id.* at 1257.

To the financial backer of such technology, however, "the technology may not be available until a respectable return on investment is obtained." *Id.* at 1262. Indeed, "cost remains the most prohibitive factor" in deep sea exploration. Drew F. T. Horrell, Note: *Telepossession is Nine-Tenths of the Law: The Emerging Industry of Deep Ocean Discovery*, 3 Pace Y.B. Int'l L. 309 (1991). Unlike shallow-water efforts, the costs involved in finding and recovering long-lost property in the oceans' depths are substantial, running into the many millions of dollars for projects that often are unlikely to yield a dime.

In this case, the district court's award of title to Columbus-America Discovery Group, based on its telepossession of the wreck, had enabled Columbus-America Discovery Group to continue expending vast amounts of resources, time, effort and scientific analysis, in the confidence that its rights to the *S.S. Central America* were protected. The opportunity of such scientists and engineers to perform scientific experiments and observe scientific phenomena at the *S.S. Central America* wreck site was possible only as a result of Columbus-America Discovery Group's ability to rely on the certainty and pre-

dictability that its rights to its discovery would be protected under the law of finds.

The location and conservation of submerged maritime historical and cultural resources similarly depends on advanced, and often costly and highly specialized technologies. Working underwater is hazardous and difficult, especially in the deep seas. Locational technologies such as side-scan sonar, subbottom profilers, magnetometers, and remotely operated vehicles can be prohibitively expensive, and the scientists and explorers who use them must be able to rely on the predictability of their rights in the find. U.S. Congress, Office of Technology, *Technologies for Underwater Archaeology and Maritime Preservation—Background Paper*, OTA-BP-E-37, 8 (1987). Their ability to obtain financial backing, either through private venture capital or commercial loans, will usually hinge on their ability to assure clear title to their finds, and to convey good and clear security interests.

B. The Decision Below Impedes Pioneering Scientific Efforts in the Deep Seas, Outer Space and Other Extreme Environments

Because of its practical effects in undermining the reasonable assurance scientists previously had of their rights to their finds and discoveries, the decision below, if allowed to stand, will likely undermine future scientific research and exploration in the deep seas. The decision makes uncertain and unpredictable the financial incentives associated with technologically advanced discovery and recovery of deposits in the deep ocean, such as historic shipwrecks. The resulting lack of predictability will make it difficult to attract the enormous sums of private risk capital—and the enterprising scientists and engineers—required for such tenuous and challenging ventures. When a discovery team of scientific researchers, supported by private financial investment, can no longer be assured of their ownership right to that which they recover, continued advanced deep ocean exploration will suffer.

Many important advances in science have been made possible as a result of Columbus-America Discovery Group's perseverance. Columbus-America Discovery Group's scientists are performing eight types of experiments that fall generally within the fields of bioscience, physical and chemical studies, and historical analysis. These experiments include (1) deterioration of metal objects; (2) microbiological studies; (3) wood degradation studies; (4) indexing abyssal fauna; (5) concentration and composition of the food chain; (6) sedimentation studies; (7) biomedical and biochemical research; and (8) development of historical information. The scientific efforts have already led not only to discovery of eleven new species of marine life (some of which hold great potential for medical applications), but also to advances in our knowledge in a variety of areas.

Like exploration of the deep seas, space exploration will likely suffer adverse effects if the decision below is allowed to stand. Because the untamed frontiers of both the deep ocean and outer space pose many of the same challenges to any human presence, legal practices and rules affecting human presence in the ocean will likely influence those in outer space. Many of the same issues affecting explorers and scientists in the deep seas will arise, and the space explorers will analogize to issues in deep ocean discovery, such as the concept of "telepresence." H.H. Almond, Jr., *Sea Salvage Law Could Solve Chaos of Space Debris*, Defense News, Dec. 10, 1990, at 34. The deleterious effects of the court of appeals' decision may thus extend beyond the deep seas, into future developments in other remote environments.

C. The Decision Below Squanders Educational Opportunities in the Deep Seas

Deep sea exploration presents enormous educational opportunities, perhaps even exceeding the potential of the deep oceans for advancing scientific research. Columbus-America Discovery Group's efforts to present seminars for

young people interested in scientific careers, to develop radio broadcasts through ham radio operators and to create two interactive laser disc videos on "Investigating Science" and "Investigating History" illustrate this potential. *See generally* Horrell, *supra.*

For example, the *S.S. Central America* Project has given students the opportunity to learn how the efforts of such scientists and entrepreneurs led to the discovery of eleven new species of sealife. Students learn how experiments are currently being performed on some of these species in the hope of discovering antigens to be used in the fight against cancer and other diseases and how others are being studied. Other species are being studied to assist in food production. The incentives provided by the repose, certainty, and predictability of the maritime law of finds had, heretofore, allowed a team of chemists, biologists, oceanographers and historians to discover an extraordinary deep sea community of life forms, to recover a lost part of America's heritage and to provide educational programs in museums across the country.

If a responsible group such as Columbus-America Discovery Group is prevented from carrying its work to completion, no scientists, explorers, archaeologists, or entrepreneurs will risk undertaking such enormously expensive projects; and they certainly will have little ability to promote the kind of educational programs otherwise available. If such multidisciplinary efforts are not undertaken, we will all be the losers.

Moreover, realizing the full educational and scientific potential of shipwrecks requires that they be treated as integral. A study of shipwrecks must be multidisciplinary; ocean engineering, marine biology, navigation, probability analysis and mathematics, and oceanography —as well as a host of other natural sciences—play an important role, and all provide an opportunity for teaching.

Dividing shipwreck sites into a multiplicity of ownership interests, based on ancient claims of ownership,

would disrupt their scientific and historic integrity and unity. It would remove important scientific information from its context.

II. THE DECISION BELOW IS IN CONFLICT WITH THE OTHER CIRCUITS AND STATE SUPREME COURTS, AND SENDS THE WRONG MESSAGE TO OUR NATION'S YOUNG PEOPLE

The court of appeals' decision breaks with long-established precedent recognizing the ability of admiralty courts to draw an inference of abandonment based on circumstantial evidence. The decision below adopts a rule —unprecedented in cases dealing with long-lost shipwrecks —which, as a practical matter, imposes an impossible burden of proof upon the finder. In any case where a person purported to have succeeded to the interest of an original owner appears, the finder must prove abandonment by clear and convincing evidence, "such as an owner's express declaration abandoning title." *Columbus-America Discovery Group v. Atlantic Mutual Insurance Co.*, 974 F.2d 450, 464 (4th Cir. 1992). In the case of shipwrecks lost for many decades, witnesses and documents will be unavailable to meet this burden and, without the ability to draw factual inferences of abandonment based on the totality of the circumstances, admiralty courts will have to award title to those interposing stale, puffed-up and perhaps fraudulent claims. And to the extent that scientists developing evidence through their exploration link specific long-lost objects to particular claimants, they will be similarly penalized, and conversely, have a disincentive to develop such information. Science will suffer.

This sends the wrong message to our nation's young people who are considering science as a career. A rule of law that penalizes advances in marine technology, scientific inquiry and learning is wrong. The law should encourage, rather than discourage, the scientific acquisition of knowledge.

CONCLUSION

For the foregoing reasons, the petition for a writ of certiorari should be granted.

Respectfully submitted,

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